

TESTIMONY OF PHILIP R. O'CONNOR, PH.D.
TO THE U.S. HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON ENERGY AND POWER
MAY 2, 1997
CHICAGO, ILLINOIS

Summary

On the three key questions:

- consumers would benefit from retail competition;
- Congress has a key role to play in revising the rules of the game;

and

- public policy symmetry argues for attention to transition costs.

The competitive pressures driving the adoption of a new paradigm for the electric industry grow in great part out of high embedded costs (transition costs) that themselves are rooted in past Federal policies. The two largest segments of transition costs, nuclear and PURPA QF contracts, were accumulated in the context of explicit and successive Federal policies on the development of peaceful nuclear power as a moral imperative, national security through energy independence and efforts to cope with expectations of \$100 per barrel oil and \$10 per mmBtu natural gas.

If Congress encourages retail access, it should also assign transition cost obligations to the states with equal specificity. To better mitigate transition costs, incumbent utilities should not be unfairly hampered in the effort to compete against new major entrants. Congress should also consider addressing the effects of past public policies on transition costs by leveling up to a 3 mills/kWh (\$.003) transition assessment that would be well below competitive savings but sufficient to deconcentrate costs and securitize \$100 billion in 8%, fifteen year bonds.

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Mr. Chairman and Members of the Subcommittee, my name is Philip R. O'Connor. For purposes of identification, I am currently a principal of Coopers & Lybrand Consulting and my *curriculum vitae* has been submitted to staff. My firm and I have a number of utility and non-utility clients who hold varying views on the particular legislation being heard and on the issue of competition in electricity in general. My testimony, however, is my own and I am personally responsible for the views I express. Some of the specific points I hope to make today, however, do arise in part out of some recent research that my firm and I have conducted at the request of the Edison Electric Institute. These points relate to the manner in which competitive transition costs have been handled by policy makers for those network industries which have preceded electricity into the world of open competition.

I compliment the Subcommittee and Congress for the willingness to take on such a complicated question and to do so in such a timely fashion, just a few years after the important changes instituted by the Energy Policy Act of 1992. The issue you face is how to help the electric industry move from vertically integrated, franchised local monopoly -- considered by virtually everyone as recently as twenty years ago to be the sole legitimate model -- to a competitive model predicated on commodity competition, end-use customer choice, open network access and a technology surge.

The Three Questions Asked by the Subcommittee

The Subcommittee has asked for comments on three questions in addition to any other points witnesses may wish to make: (1) whether consumers would benefit from having the ability to choose their electrical power supplier; (2) whether Federal legislation that provides for state implementation of retail competition programs and addresses interstate commerce issues is necessary;

and (3) what elements should be incorporated in Federal customer choice legislation.

First, I have waited nearly fourteen years for this moment. From late 1983 through 1985, during my tenure as Chairman of the Illinois Commerce Commission, which is responsible for utility regulation in our state, we published a series of monographs calling for competition in electricity. Early on we recognized the benefits that would flow from changing the electric paradigm from monopoly to competition. Materials relevant to my personal belief in and commitment to competition are attached as exhibits to this testimony. *I have no doubts whatsoever that end-use consumer choice in electricity will yield significant value for the economy and for consumers.* Prices will reflect the demand/supply dynamic and approximate marginal cost, in contrast to the highly distorted prices characteristic of rate of return regulation which are oriented toward embedded costs and average cost pricing.

Those currently distorted prices are a major driving force of the competitive pressures we see today and were a key factor in creating the transition costs which must be a central consideration in the process of moving to competition.

We will see product and service innovation and, most likely, a surge in technology that will further contribute to progress in electric technologies, further electrification of the economy, improvements in environmental protection and enhanced customer satisfaction.

Second, there are several respects in which Federal legislation encouraging end-user choice can be either desirable or even necessary. *The history of the other network industries which have experienced the movement from regulated monopoly to competition argues for clear and decisive policy action which can both accelerate and smooth the process. There is no escaping the reality that key policy decisions will have to be taken at both the Federal and state levels.* At a minimum, Congress should empower the Federal Energy Regulatory Commission (FERC) to render highly flexible decisions which can minimize the

time, cost and uncertainty of major business and state regulatory decisions -- such as mergers or divestment if generation, transmission and distribution. FERC should also be able to intervene when certain state level decisions are having adverse effects on other states in their efforts to move ahead on competition. I do not see a matter of principle or of states' rights here. We have long lived with a legal fiction that electricity bought and sold at the wholesale level was in interstate commerce. The physical predicate for that fiction, the path of least resistance flow of electricity, is virtually identical for retail electricity, especially in the context of competition among commodity suppliers. There are, however, major questions of implementation and whether states should be seen or treated as mere delegates or subunits of the Federal Government. That would be short sighted in the extreme. Indeed, much of what we see today in terms of transition costs arises out of fifty years of Federal policies which sought to treat both states utility commissions and the utilities they regulated as implementers and facilitators of Congressional decisions.

Third, Federal legislation encouraging end-user choice should be symmetrical in that Congress ought to take account of its past policies in electricity in order to both accelerate and smooth the transition. Put simply, the two major areas of transition costs, nuclear power and qualifying facility (QF) contracts pursuant to PURPA, are rooted in explicit, aggressive and consciously undertaken Congressional policies delegated to the states and to utilities for implementation. The historical record in both arenas is compelling and ought to help frame what is intended to be an entirely new set of rules of the game based on end-user choice. Federal promotion of nuclear energy and QF power purchase requirements were based on Congress' belief in the permanence of the vertical electric utility monopoly.

The Moral Imperative of Peaceful Nuclear Power

The adaptation of nuclear energy to peaceful purposes was a conscious national goal from virtually the moment that the atomic bomb brought an end to World War II. Our nation and its leaders, thankful for a fearsome weapon that delivered both Japan and the Allies from many more months of war, felt driven by a moral imperative to convert that weapon to peaceful purposes. The preamble to the Atomic Energy Act of 1946 makes this sense of mission clear. Some of our greatest war time and post-war leaders including Presidents Truman, Eisenhower, Kennedy and Johnson were unflagging advocates of peaceful nuclear energy. Throughout the late 1940s, 1950s and 1960s strong Congressional advocates emerged, such as Senators Albert Gore, Sr., John Pastore, Representatives Chet Holifield, Craig Hosmer and Illinois' own Melvin Price -- whose name endures on the nuclear risk insurance law, the Price-Anderson Act. In the fifteen years following World War II, there was much urging by Congress and the Atomic Energy Commission complemented by major Federal research expenditures. Finally, the investor owned industry was offered a choice. The 1956 Gore-Holifield bill posed the alternative of a half-dozen Federal nuclear TVA's if the investor owned utility industry did not take up the challenge of fully commercializing nuclear energy. Faced with an unpleasant choice, the industry and Congress chose a privately operated but Federally regulated nuclear power industry. However, it was not until 1963 that the U.S. utility industry finally gave itself over to the widespread belief that nuclear power offered a sustainable and attractive option. The era of accelerated commitment to investor owned nuclear power actually lasted but a decade. The last nuclear plant to actually be built and operated was ordered in 1973 -- nearly twenty-five years ago. When it comes to the question of nuclear power as a transition cost, we must go back more than two or three decades for the relevant combination of public policy and business decisions.

In the wake of the last nuclear plant order in 1973, the first international

oil embargo created an entirely new rationale for carrying through on the nuclear commitment. National security policy, embodied in repeated calls by successive presidents and Congresses for national energy independence, looked to nuclear energy as closely linked to American capacity to resist efforts in the international arena to extract concessions from through oil embargoes. The commitment to the linkage between nuclear energy and national energy independence reached its height even while the country was riveted on the accident at Three Mile Island, an event which precipitated dramatic increases in safety regulation nuclear construction and operating costs at the peak of high inflation and interest rates.

A complex of public policies in the four decades following World War II had a common thread of reliance on the commercialization and proliferation of peaceful nuclear energy. In the late 1970s, these same policies also evolved into another policy which would lead directly to a second major aspect of transition costs we now face.

PURPA Arose out of Oil and Natural Gas Policy

In 1978, just five years after the last nuclear plant to be built was ordered, Congress enacted both the Public Utilities Regulatory Policy Act (PURPA) and the Natural Gas Policy Act (NGPA). These two major pieces of legislation shared the same predicate idea that oil would rise to \$100 a barrel and natural gas to \$10 per million Btus. This belief, widely adhered to in Congress, industry and in the media, proved to be very much mistaken, but, nonetheless, set the course for energy policy in the United States for the two decades that have followed including stimulation of the competitive forces we now see. PURPA required local electric utilities to buy power from a variety of independently owned generating units at avoided costs set administratively by the states. The NGPA was designed to incentivize natural gas exploration and production but also set out to eventually prohibit the use of gas in new electric generation because of the expectation that gas would be

both expensive and scarce. PURPA has been out of date for a number of years and the Energy Policy Act of 1992 tacitly acknowledged its obsolescence. PURPA should be repealed along with any prompt movement to retail access. Continuation will only further burden the system with more transition costs.

Federal Policies Have Significantly Contributed to the Accumulation of Transition Costs

A combination of Federal policies, international events and conditions more related to public policy than to business decisions by utilities converged to generate the many billions of dollars in past utility investments and commitments which now must be confronted as we change the rules. Inflation and high interest rates at the peak of nuclear construction, falling rates of energy demand growth related to surging international oil prices, regulatory policies that distorted prices and obscured costs all conspired to contribute, though not completely cause today's transition costs.

We should make no mistake. The business decisions utilities made that resulted in today's transition cost problems were taken in the context of explicit public policies and under rules of the game that were predicated on the continued existence of the locally franchised vertically integrated utility. Public policy should take account of the past in order to help construct the future.

Policy Makers Have Addressed Transition Costs of Other Network Industries

In all past transitions of network industries, airlines, railroads, trucking, telecommunications and natural gas, policy makers -- mainly Congress and Federal regulatory agencies -- have conscientiously addressed the recovery of and mitigation of transition costs to the extent they existed and were related to past policy. For example, after the deregulation of interstate trucking

Congress allowed for a tax deduction for the lost value of previously exclusive route certificates -- many of which had been used as collateral for loans to buy trucks. In the gas industry, FERC provided for the recovery of pipeline buy out costs of take-or-pay contracts. In telecommunications, a vast complex of cross-subsidies directed long distance revenues to subsidize local exchanges, favoring higher cost ones with large infusions of revenue. Well over a decade following the initial deregulatory actions, transition costs continue to be collected in these and other industries.

The pattern followed by policy makers and regulators in addressing transition costs has been to permit substantial flexibility when the costs have been largely those of high embedded operating costs (airlines, rail and trucking) and of collecting and dedicating revenues when the costs have arisen out of sunk investment or commodity contracts (telecommunications and natural gas).

- In airlines, high embedded operating costs associated with certificated route lock-in and the use of inappropriately sized aircraft for low load routes were addressed through easy merger approval and ease of route entry and exit. Smaller communities are still receiving subsidies through the Essential Air Services program. All pricing was deregulated.
- High rail operating costs were also mitigated through ease of merger approval and sale or abandonment of unprofitable lines. Federal financial assistance has been provided to new short line railroads. All pricing was deregulated.
- Plagued by route certificates requiring deadheading and with a financial structure based on the expectation of exclusive route certificates, the trucking industry was helped by ease of merger approval and route entry and exit. In addition, the lost value of route certificates which trucking companies had often used as collateral for loans was partly compensated for by legislation allowing for a tax

deduction for the lost value. Intrastate trucking remained regulated until the end of 1994 when Congress pre-empted state controls.

- Compensation for and mitigation of transition costs in telecommunications has been massive and wide ranging. Much of the attention has been directed toward the maintenance of cross-subsidies running generally from long distance to local exchange service and from business to residential customers. Transition cost mechanisms have included long distance access charges paid to the local exchange carrier, the FCC subscriber line charge, customer ownership of premises equipment, accelerated depreciation of inside wire, the NTS and high cost funds, local exchange ownership of yellow pages, over cost charges for such services as call forwarding and high intrastate toll call charges all represent ways in which policy makers and regulators have acted to address transition costs in the telecommunications industry. The Telecommunications Act of 1996 maintained much of the transition and cross-subsidy network.
- The key to transition cost recovery in the natural gas industry was permitting the buy out costs of renegotiated or terminated long term, take-or-pay gas contracts to be shared between pipelines and their downstream local distribution and end-use customers. In addition, more than ten years after FERC Order 436 which initiated pipeline open access in earnest, most residential gas customers in the country are still not permitted direct access service.

Even after transition cost recovery designed to accommodate the effects of past public policies, consumers have reaped significant benefits from competition, a fact supported by analyses from such ideologically disparate organizations as the Brookings Institution and the Progress and Freedom Foundation. Providing for both in electricity competition policy would be nothing new. Failing to do so would be. Failure to directly confront

transition costs would represent a denial that past public policies -- more at the Federal level than at the state level -- are at the root of these costs.

Three Suggestions for Congress on Transition Costs

I have three specific suggestions with respect to the relationship of a Congressional encouragement for customer choice:

- To the extent that Congress delegates to the states the implementation of retail access, Congress should also delegate the authority and obligation for methods to collect transition costs.
- In order to better mitigate transition costs so that collection through a special mechanism would be less burdensome, Congress should assure that utilities and utility affiliates have every opportunity to compete. They should not be unfairly hampered in the name of opening up the market to new entrants. Many of the new entrants into a competitive electric market will be major national corporations larger than the incumbent utilities.
- If consumer choice is national policy then some transition costs should be recovered at the national level. Current transition mechanisms at the state level, in the absence of a Federal policy on retail access, focus on recovery within the traditional service territory. This approach does nothing either to relieve the competitive pressures that arise out of widely disparate local utility rates or to acknowledge the role that past Federal policy has played in the creation of transition costs. Congress should consider providing for a network transition cost assessment of approximately 3 mills or 3/10 of a cent per kilowatt hour (kWh) on average. It could be assumed that every kWh moves over the transmission system under FERC authority. This approximate 4.5% assessment on current average retail prices across the country is well below the expected benefits of competition for most customers. The approximate \$10.5 billion generated in a year 2000 3 mill assessment,

rising in subsequent years as demand increases at less than 2%, could be dedicated by Congress to a fund that could securitize roughly \$100 billion in transition bonds at 8% with a fifteen year amortization period. In a period of time roughly equal to that which we have allowed for the transition of trucking, telecommunications and gas, we could deal with a large portion of electric transition costs at the national level and move quickly to provide the benefits of retail access. It took thirty years to build up nuclear transition costs and nearly twenty to accumulate QF transition costs. A fifteen year workout is not excessive considering the benefits of doing so. Inefficient plants would shut down, operating costs would decrease and new products and services would aggressively emerge.

The Boise Compromise

One final point should be made about provisions which would help to accelerate and smooth the transition to competition. Concerns have been expressed that there are a number of utilities and states in the country whose consumers might see prices rise under competition. While the overwhelming majority of consumers would see prices fall under competition and appropriate transition cost recovery, there are some consumers who today pay an embedded cost lower than average national prices or even regional marginal cost. Again, we see an artifact of mainly past Federal policies -- largely associated with hydro development. I would urge Congress to build on the opt-out idea offered by FERC Chairman Betsy Moler. Her idea deserved a warmer reception. Simply modify the Moler Proposal into something I would call the Boise Compromise. Permit any state utility commission to petition FERC for an exemption from a retail access mandate for up to five years for any utility within its jurisdiction. FERC could disapprove if there were not a showing that average revenue per kWh at retail would most likely rise due to competition. This would avoid confusing average revenue with rate design artifacts. The value of the Boise Compromise is threefold. First, it eliminates a political

irritant that should not get in the way of a general movement to competition.

Second, the actual portion of the market affected would be so small as to avoid any serious distortions in supply and demand generally. Third, whether the state commission was right or wrong would become apparent pretty quickly since there would be readily available comparisons with free market prices and innovations elsewhere.

The Competition Agenda is Ambitious and Valuable

The Subcommittee and its members have set an ambitious agenda for Congress, consumers and the electric industry. Developments in the market and the likely benefits argue for such an agenda. Past public policy and an adherence to a basic American principle that future governance respect the consequences of past governance present a compelling case for the inclusion of specific transition cost recovery and mitigation provisions in legislation which encourages retails access.

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Free-Market Electricity 'Is Inevitable,' Says Utility Znnovator Philip O'Connor

By BILL PAUL

Staff Reporter of THE WALL STREET JOURNAL

Ask Philip R. O'Connor about the future of electric utilities and he launches into a story about two serfs in czarist Russia.

"One asks the other, 'Do you think we should treat the czar so well?' As soon as that question was posed," Mr. O'Connor says, "the answer became inevitable."

It is the same today, he explains, for utility officials asking whether there should be competition in their industry. "Free-market competition for electricity is inevitable."

So says the man responsible for some of the most innovative recent thinking in the electric-utility field.

That includes his company's guidance on Commonwealth Edison Co.'s proposal to give up a guaranteed rate of return and accept a five-year rate freeze for three nuclear plants. In return, the Chicago-based utility is asking for a "immediate 13% rate increase and per Philip R. O'Connor mission to sell the plants electricity anywhere it wants after five years. current regulatory practice generally guarantees utilities a designated return on equity and restricts them to sales within their local area.

A former chairman of the Illinois Commerce Commission and now head of Chicago-based Palmer-Bellevue Corp., a utility investment and consulting firm, Mr. O'Connor is the Pied Piper of free-market thinking in what is still a heavily regulated industry.

"Phil O'Connor has forced us to think. His ideas are important," says Douglas Bauer, senior vice president, strategic planning, for Edison Electric Institute, the industry's trade group.

"He is taken very seriously in the investment community. He was among the first to predict the changes now occurring," says Ernest R. Liu, utility analyst for Goldman, Sachs & Co.

Prophecy Still Doubted

But while Mr. O'Connor is respected, many still doubt his prophecy of a free market for electricity. "Many of us continue to believe in regulation," says Michael Foley, director of financial analysis



for the National Association of Regulatory Utility Commissioners in Washington, D.C.

Mr. O'Connor believes that when the "revolution" in the electric-utility industry is complete, electricity will be priced "like any other commodity." Power, he says, will be transmitted from state to state and from region to region, both under long-term contract and in a spot or auction market. Many utilities will merge to take advantage of economies of scale, while others will go private as investors recognize the greater profit potential of a free marketplace.

"Economic regulation leads either to inadequate supplies or an oversupply of electricity because prices are too high," says Mr. O'Connor. He adds that a free market, by encouraging smaller-unit construction with shorter lead times, can keep supply and demand in better balance, plus prevent the costly building mistakes that occurred during the industry's last building cycle—mistakes that state regulators are now having to pass on to ratepayers lest utilities go bankrupt.

'A Small Bite'

Commonwealth Edison's new rate proposal, announced last month, represents "a small bite in the revolution," says Mr. O'Connor, but to analysts like Daniel Scotto of L.F. Rothschild, Unterberg, Towbin Inc., the plan, which was authored by Palmer-Bellevue, is a "radical departure in rate making."

The proposal would eliminate the concept of a guaranteed return on equity for three of the utility's nuclear plants. Most utilities today enjoy a 12% to 15% guaranteed rate of return. To be sure, the plants' fixed expenses—the cost of building and operating them—would continue to be guaranteed, but ratepayers wouldn't have to pay for any further return. Profitability would depend on whether and for how much those plants' power could be sold in the open market. Commonwealth proposes to sell the plants' output locally, but under the proposal, nothing would prevent it from transmitting, or "wheeling," the power out of state.

Andrew Varley, chairman of the state commerce commission in neighboring Iowa, says the Commonwealth Edison plan "could be a real windfall for Iowa." If the price is right for the state's utilities. At the same time, Mr. Varley is worried about Commonwealth Edison trying to

take its free-market approach one step farther and sell directly to customers in Iowa. "We can't let (Commonwealth Edison) pick off Iowa customers" because that would increase the burden on customers who stay with Iowa utilities, he says.

Problems Seen

Another regulator who sees problems with Mr. O'Connor's approach is Edward F. Burke, chairman of the Rhode Island Public Utilities Commission. He says that "meaningful" competition would be fine but that until the nation's transmission grid is greatly beefed up, such competition won't be possible.

Mr. Burke says that to have a truly competitive market he would want at least

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three basic sources of power—local, Canadian and Midwestern. He explains that in Rhode Island, competition from Canadian hydropower is developing. But transmission bottlenecks continue to keep low-cost Midwestern coal-fueled power from reaching the state.

Until those and other bottlenecks are eliminated—creating a North American power grid—regulation will be needed to prevent price-gouging if power becomes scarce again, he says. Mr. Burke adds, however, "I want Phil to keep pushing" for a free market.

In addition to Commonwealth Edison's rate plan, Mr. O'Connor also was behind the recent attempt by an investor group to take Public Service Co. of Indiana private. The transaction fell through because of management opposition. Nevertheless, the plan "represented a whole new approach to valuing" a utility, says L.F. Rothschild's Mr. Scotto.

Strong Cash Flow

Specifically, Mr. O'Connor's group valued Indiana Public Service on a cash-flow basis, rather than on a traditional asset-value basis. The cash-flow approach is said to broaden investor analysis of a utility by taking into account new factors, such as management's skill in marketing, investing available funds and constructing new plants. Mr. Scotto says Mr. O'Connor showed Wall Street that a utility can be an attractive takeover candidate when it has a strong cash flow.

Putting his own lessons to use, Mr. O'Connor says his investment firm currently is looking at the possibility of putting together the acquisition of "a couple of very small, lightly traded electric companies." He declines to give names but adds that any such transaction is still in preliminary stages.